

REMARKS

Claims 1-36 are pending. Claims 1-11, 17-19, 22, 28-29, and 34-36 are rejected. Claims 12-16, 20-21, and 23-27 are objected to. Claims 1 and 28 are amended. Claims 30-33 are allowed. Reconsideration and allowance of Claims 1-36 are respectfully requested.

Allowable Subject Matter

The Examiner has indicated that Claims 30-33 are allowable over the cited references. Applicants thank the Examiner for acknowledging allowable subject matter.

Claim Rejections

Claims 1-11, 17-19, 22, 28-29, and 34-36 are rejected under 35 USC §102(e) as being anticipated by U.S. Patent No. 6,237,061 to Srinivasan et al (Srinivasan). Applicants respectfully traverse these rejections.

Claims 1-27

Applicants' Claim 1 (as amended) recites:

A content addressable memory (CAM) system comprising:

a ternary CAM array segmented into a plurality of array groups, each array group including a plurality of rows of ternary CAM cells; and

a plurality of first storage elements each for storing a priority of a corresponding array group, wherein the priorities are assigned to the array groups irrespective of the physical locations of the array groups relative to each other.

First, Srinivasan fails to disclose or suggest a CAM system that includes "a ternary CAM array segmented into a plurality of array groups, each array group including a plurality of rows of ternary CAM cells," as recited in Applicants' Claim 1.

Second, Srinivasan fails to disclose or suggest a CAM system that includes "a plurality of first storage elements each for storing a priority of a corresponding array group," as recited in Applicants' Claim 1.

Third, Srinivasan fails to disclose or suggest a CAM system in which “the priorities are assigned to the array groups irrespective of the physical locations of the array groups relative to each other,” as recited in Applicants’ Claim 1. For example, as indicated in Applicants’ specification at page 38, line 28 to page 39, line 1, “the array groups 1252 can be assigned any priority in any order, and more than one array group may be assigned the same priority.” In contrast, Srinivasan requires that “CIDR addresses are pre-sorted and loaded into the ternary CAM such that the CAM entry having the longest prefix is located at the lowest numerical address or index of the ternary CAM, and the CAM entry with the shortest prefix is located at the highest numerical address or index.”

To anticipate a claim under 35 USC §102, each and every element of the claim must be disclosed in a single reference (*Corning Glass Works v. Sumitomo Electric*, 9 USPQ2d 1962, 1965 (Fed. Cir. 1989)). The exclusion of a claimed element from a prior art reference is typically enough to negate anticipation under 35 USC §102. Thus, because Srinivasan fails to disclose or suggest a CAM system that includes “a ternary CAM array segmented into a plurality of array groups, each array group including a plurality of rows of ternary CAM cells” and “a plurality of first storage elements each for storing a priority of a corresponding array group, wherein the priorities are assigned to the array groups irrespective of the physical locations of the array groups relative to each other,” as recited in Applicants’ Claim 1, Claim 1 is neither anticipated by nor rendered obvious in view of Srinivasan. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of Claim 1.

Claims 2-27 depend from Claim 1 and therefore distinguish over the cited references for at least the same reasons as Claim 1.

Claims 28-29 and 34-36

Applicants’ Claim 28 (as amended) recites:

A method of operating a content addressable memory (CAM) system including an array of ternary CAM cells segmented into a plurality of array groups, comprising:

storing a plurality of priorities in a plurality of storage elements each associated with one or more of the array groups, wherein each array group includes a plurality of

rows of the ternary CAM cells;

assigning the priorities to the array groups irrespective of the physical locations of the array groups relative to each other; and

selectively storing data in the array groups according to the priorities.

As discussed above with respect to Claim 1, Srinivasan fails to disclose or suggest a CAM array in which the priorities are assigned to the array groups irrespective of the physical locations of the array groups relative each other. Rather, as discussed above with respect to Claim 1, Srinivasan requires that CAM entries are pre-sorted and loaded into the ternary CAM such that the CAM entry having the longest prefix is located at the lowest numerical address or index of the ternary CAM, and the CAM entry with the shortest prefix is located at the highest numerical address or index. Accordingly, Claim 28 is neither anticipated by nor rendered obvious in view of Srinivasan, and therefore Applicants respectfully request the Examiner to withdraw the rejection of Claim 28.

Claims 29 and 34-39 depend from Claim 28 and therefore distinguish over the cited references for at least the same reasons as Claim 28.

CONCLUSION

In light of the above claim amendments and remarks, it is believed that Claims 1-36 are in condition for allowance and, therefore, a Notice of Allowance of Claims 1-36 is respectfully requested. If the Examiner's next action is other than allowance as requested, the Examiner is requested to call the undersigned at (415) 379-6143.

Respectfully submitted,



Dated: December 21, 2005

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is deposited with the U.S. Postal Service in an envelope addressed to the Commissioner for Patents, Alexandria, VA 22313 on December 21, 2005.



By:

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